PHP3

ECONOMIC IMPACT OF A DEVICE FOR PREPARING STERILE SOLUTIONS IN THE MT. SINAI HOSPITAL PHARMACY

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OBJECTIVES: To investigate the economic impact of a device for automating the preparation of sterile solutions in the Mount Sinai Hospital Pharmacy. **METHODS:** The Gri-fill system (G-S) uses sterile filtration and a documented filter integrity test for each unit of sterile solution prepared. The present study examined the economic impact of the G-S in preparing 3 pain management solutions and 4 total parenteral nutrition (TPN) solutions. Costs were categorized in terms of staff time, drug, and disposable costs for the G-S versus the usual manual process. For each product type, a minimum of 30 units were prepared using each process. Material costs were calculated using Average Wholesale Prices (AWP) of drugs and disposables; staff costs were based on hospital administrative costs for pharmacist and technician time. **RESULTS:** The number of units prepared for each solution ranged from 24 to 129. Batch size was considerably larger with the G-S (mean of 30.7 units per batch with G-S, 4.9 units with the manual system). Production cost per unit was lower with the G-S for *5* of the 7 solutions studied. Main differences between the two systems were in terms of disposable costs, which were proportionally greater with the G-S (mean of $9.54 per unit with G-S compared to $6.05 manual, for all solutions), and staff costs, which were less with the G-S (mean of $0.82 per unit compared to $3.84 for the manual system, all solutions). **CONCLUSIONS:** The G-S produced cost savings for most of the solutions studied. The size of savings is dependent primarily on solution mix and batch size.

PHP4

ECONOMIC COMPARISON OF TWO XENETIX® 300 PRESENTATIONS

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OBJECTIVES: Two approaches are available for contrast agent injection in Multislice CT: single-patient (SiPA) and multi-patient (MuPA): The former requires one set of devices for 1 patient, the latter uses one set for two to four patients. The objective is to quantify the benefit in terms of time and cost saving between the two approaches. **METHODS:** The study was performed in two Spanish hospitals. Assessment was based on three measurements: time spent carrying out the injection, quantity of devices used, volumes of XENETIX® filling the syringe and injected to patients. The costs of devices and XENETIX® were taken from hospital bills. Times collected were linked to costs through an average hourly cost of nurses and/or radiodiagnostic specialists involved. A sensitivity analysis was performed to determine in which proportions of 2-, 3-, or 4-patient vials the MuPA is dominant. **RESULTS:** 209 patients were included in two groups. The durations of manipulation are favourable to the MuPA (121 vs. 151 sec/patient) but patients were not identically distributed: the first patients' durations in the MuPA are higher than the later ones. So a sensitivity analysis was performed by varying the proportion of vials with 2,3,4 patients. These simulations reveal that the MuPA is dominant in nearly all cases (except when the rate of patients treated with a 2-patient vial is superior to 20%, which is not realistic). In a sample of 200 patients the SiPA and the MuPA entails mean total costs of €11,972 and €10,931 respectively ($p < 0.0001$ Wald-test) with proportions based on the collected sample (91.4%, 5.7% and 2.9% of vials with 3, 2 and 4 patients respectively). **CONCLUSIONS:** The descriptive and sensitivity analysis proves statistically that the MuPA is the more time- and cost-saving and deserves to be supported.

PHP5

COST OF SEVERE BLUNT TRAUMA IN THE UK

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OBJECTIVE: Severe blunt trauma injuries are known to affect more than 12,000 individuals in the UK (UK) each year, the majority of whom require very intensive and expensive emergency care. A number of studies have estimated the direct and indirect cost of severe trauma injuries in different countries. The objective of this study is to provide an estimate of the direct medical cost of severe blunt trauma in the UK. **METHODS:** A bottom-up costing exercise was undertaken to estimate the direct medical cost of a typical severe blunt trauma patient involved in a motor vehicle traffic accident from the perspective of the UK NHS. The typical severe blunt trauma patient used in the analysis was adapted from previously published literature to be representative of patients presenting at UK trauma centers. UK-specific unit costs were applied to the different items of resource use identified in order to estimate the direct medical cost of a severe blunt trauma patient in the UK. **RESULTS:** The estimated direct medical cost of a severe blunt trauma patient in the UK is £48,813. The main cost drivers are ICU stay (56%) and surgical intervention (32%). This estimate is similar to those reported in the literature. The incidence of severe trauma in UK is estimated to be four per one million per week (approximately 12,000 per year). This indicates that the total direct cost to the UK NHS of severe trauma is around £0.6 billion per year. Given that published studies suggest that the direct medical costs of trauma represent about 25% of the total cost, the total cost of trauma in the UK would be around 2.4 billion per year. **CONCLUSIONS:** The direct medical cost of trauma represents a substantial economic burden to society. Initiatives that reduce this burden (e.g. prevention, treatment) are welcomed.

PHP6

DRUG PRICE INDICES 1980–2004 IN FINLAND

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OBJECTIVES: To describe the development of drug wholesale price indices in Finland in 1980–2004. **METHODS:** Price indices covering study period (The Helsinki Research Institute for Business Administration [1980–1990], IMS [1991–1994] and Statistics Finland [1995–2004]) were merged into two index clusters (1980 = 100 and 1990 = 100). The latter enables more precise classification according to reimbursement categories. Real price indices were produced by adjusting nominal indices with Consumer Price Index (CPI, Statistics Finland) and its sub-index Consumer Price Index for Health Care (CPI—H, Statistics Finland). **RESULTS:** In 2004, the index (1980 = 100) for all drugs was 167 (CPI adjusted 65; CPI—H adjusted 33) and for basic refund category 141 (55; 28), respectively. The respective figures in 1990 = 100 index were: all drugs 107 (84; 60), prescription based 101 (79; 57), reimbursed 96 (75; 54), Basic Refund ("50%") 96 (76; 54), Lower Special Refund ("75%") 91 (71; 51) and Higher Special Refund ("100%") 102 (80; 58). **CONCLUSIONS:** Nominal drug wholesale prices have increased